

lucitelux[®] Continuous Cast Technical Bulletin

		Test Method	Typical Value ^(a)
General	Specific Gravity	ASTM D792	1.19
Mechanical			
	Tensile Strength ❖ % Elongation @ break ❖ Modulus of elasticity ❖ % Elongation @ yield	ASTM D638	11,000 psi 7.6% 465,000 psi 6.0%
	Flexural Strength ❖ Flexural modulus (tangent)	ASTM D790	14,700 psi 461,000 psi
	Impact Strength ❖ Compressive strength (x-y plane) ❖ Compressive stress @ yield ❖ Compressive modulus ❖ Charpy (un-notched) ❖ Charpy (notched) ❖ Shear Strength (punch tool) ❖ Izod (procedure A)	ASTM D695 ASTM D256 ASTM D6110 ASTM D732 ASTM D256	83,300 psi 18,000 psi 279,000 psi 5.0 ft lb/in/in 20.8 J/m 11,200 psi 0.32 ft-lb. / in.
	Rockwell Hardness	ASTM D785	M-100
	Residual Shrinkage (b) (Internal Strength)	ASTM D702	2.5 % maximum
Optical	Refractive Index	ASTM D542	1.49
	Light Transmission, Total **	ASTM D1003	92%
	Haze	ASTM D1003	Less than 1%
	Yellowness index (YI)		Less than 0.3
	UV Spectral Transmission	ASTM D4802 Beckman	5% max
	Surface Abrasion Resistance (c) (Taber , CS-10)	ASTM D1044	500 cycles : < 1% 1000 cycles: <2%
Thermal	Maximum Continuous Service Temperature		175°F (d)
	Coefficient of Thermal Conductivity		1.45 Btu in./ft ² hr. °F
	Deflection Temperature under load, 264 psi	ASTM D648	200°F
	Hot Forming Temperature		280°-340°F (138°-170°C)
	Coefficient of Linear Thermal Expansion	ASTM D696	3.5 E-05 in/in/°F
	Specific Heat		0.35 Btu/ lb (°F)
Electrical	D-C Resistance ❖ Volume Resistivity ❖ Surface Resistivity	ASTM D257	>3.912E+15 Ω/cm > 5.237E+15 Ω/sq
	Dielectric Strength (2000v/sec)	ASTM D149	354 V/mil

	Dielectric Constant, k' ❖ 60 Hz ❖ 1 KHz ❖ 1MHz Dissipation Factor, D ❖ 60Hz ❖ 1KHz ❖ 1MHz Arc Resistance	ASTM D150 ASTM D495	3.3 3.0 2.7 0.06 0.04 0.02 No tracking
Combustibility	Smoke Density Rating Tunnel Test (smoke developed) ❖ 0.118" ❖ 0.236" Rate of Flame Spread ❖ 0.118" ❖ 0.236" Fuel contribution factor Ignition temperature Radiant Panel, Flame spread index ❖ 0.118" ❖ 0.236" Horizontal Burn ❖ 0.118" ❖ 0.236"	ASTM D2843 ASTM E84 ASTM E84 - ASTM D1929 ASTM E162 ASTM D635	13.5% 385 530 140 110 11,300 Btu/lb 750°F (399°C) 219 249 1.18 in./min. 0.65 in./min
	UL Horizontal Burn Rating	UL94	94 HB (f1); (f2)
Miscellaneous			
Water Absorption	24 hrs @ 23°C 2 hrs boiling water immersion	ASTM D570	0.2% 0.6%
	Soluble Matter Lost (post immersion)	ASTM D570	nil
	Odour	-	nil
	Taste	-	n/a
	Dimensional tolerances, inches ❖ Length – width ❖ Squareness (Δ in length of diagonal)		+1/4" – 0" ≤ 1/4"
Compliances	Food Contact : FDA Environmental: TSCA, REACH, DSL & EINECS (see MSDS for complete list)	21CFR 177.1010 -	clear (all thickness) listed / included

Notes:

- Values provided should not be used for specification purposes. Some values will vary with sheet thickness.
- Measured at room temperature before and after heating above 300° F.
- Numerical values indicate % light transmission loss after indicated cycles.
- It is recommended that temperatures not exceed 180°F for continuous service

***All test performed on 0.236" thick acrylic, unless otherwise noted**

****Data is Optical value representative of LuciteLux® clear only. For information on color contact Technical Service at 1-800-4-LUCITE**

The information and recommendations in this document are, to the best of our knowledge, reliable. Users should perform their own tests to determine the suitability of these products for their own particular purposes. Statements made herein should, therefore, not be construed as representations or warranties. The responsibilities of Lucite International, Inc. for claims arising out of breach of warranty, negligence, strict liability, or otherwise is limited to the purchase price of the material. Statements made herein concerning the use of the products or formulations described herein are not to be construed as granting a license to operate under any patent of Lucite International, Inc. or another, or as recommending the infringement of any patent of Lucite International, Inc. or another, and no liability for infringement arising out of any such use is assumed.

Rev. 7/2013

Distributed by:



Toll Free: 1.800.277.7898

www.piedmontplastics.com